WHAT IS CLAIMED IS:

1. A method for generating one or more Ethernet frames having a maximum length and a maximum payload from a Fibre Channel ("FC") frame having a frame length and for transmitting said FC frame over a Gigabit Ethernet to an intended destination, said method comprising the steps of:

(a) determining whether said FC frame length is smaller than said Ethernet frame maximum payload and if so generating an Ethernet frame wherein its payload comprises said FC frame and transmitting said Ethernet frame including said FC frame over said Ethernet to said intended destination, and if not then performing steps (b) through (f);

(b) dividing said FC Frame into a first and second FC fragment, wherein each said FC fragment is smaller than said Ethernet frame maximum payload;

(c) generating a storage transport layer field comprising said FC frame length;

(d) generating a first Ethernet Frame comprising said storage transport layer field and said first FC fragment;

(e) generating a second Ethernet Frame comprising said second FC fragment; and

(f) transmitting said first and second Ethernet Frames including said FC frame over said Ethernet to enable said FC fragments to be reassembled at said intended destination.

2. The method of Claim 1, wherein Transmission Control Protocol performs steps (a) through (e).

3. The method of Claim 1, wherein said first FC fragment comprises a start of frame field, a frame header field, an optional header field, a first portion of an FC frame payload field and said second FC fragment comprises a second portion of said FC frame payload field, a Cyclic Redundancy Check field and an End of Frame field.

4. A method for generating two Ethernet frames having a maximum length and a maximum payload from a Fibre Channel ("FC") frame having a frame length and for transmitting said FC frame over a Gigabit Ethernet to an intended destination, said method comprising the steps of:

(a) determining that said FC frame length is larger than said Ethernet frame maximum payload;

(b) dividing said FC Frame into a first and second FC fragment, wherein each said FC fragment is smaller than said Ethernet frame maximum payload;

(c) generating a storage transport layer field comprising said FC frame length;

(d) generating a first Ethernet Frame comprising said storage transport layer field and said first FC fragment;

(e) generating a second Ethernet Frame comprising said second FC fragment; and

(f) transmitting said first and second Ethernet Frames including said FC fragments over said Ethernet to enable said FC frame to be reassembled at said intended destination.

5. A method for generating an Ethernet frames having a maximum length and a maximum payload from a Fibre Channel ("FC") frame having a frame length and for

transmitting said FC frame over the Ethernet to an intended destination, said method comprising the steps of:

(a) determining that said FC frame length is smaller than said Ethernet frame maximum payload;

(b) generating an Ethernet frame wherein its payload comprises said FC frame;

(c) transmitting said Ethernet frame including said FC frame over the Ethernet to said intended destination.

6. A Transmission Control Protocol/Internet Protocol ("TCP/IP") protocol stack having a transport layer for transferring over a Gigabit Ethernet one or more FC frames having a frame size for each said FC frame, the improvement comprising said transport layer comprising a storage transport layer, wherein said storage transport layer enables said transport layer to be operative for:

determining based upon said frame size of a given FC frame whether to generate one or two Ethernet frames, said one or two Ethernet frames comprising a payload that includes said given FC frame; and

transmitting said one or two Ethernet Frames including said given FC frame over said Ethernet to an intended destination; and

enabling, if necessary, said FC frame to be reassembled from said two Ethernet frames at said intended destination.

7. The TCP/IP protocol stack of Claim 1, wherein said storage transport protocol comprises a frame length field that corresponds to said frame length of said given FC

frame, and said storage transport layer further comprises a checksum filed for error checking of said storage transport layer.